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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/788,286	02/16/2001	Michael B. Goshe	23-56765	5274

7590

01/28/2004

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EXAMINER

CEPERLEY, MARY

ART UNIT

PAPER NUMBER

1641

DATE MAILED: 01/28/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/788,286

Applicant(s)

GOSHE ET AL.

Examiner

Mary (Molly) E. Ceperley

Art Unit

1641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 15-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 24-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Art Unit: 1641

1) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2) Claims 1-14 and 24-27 are again rejected under 35 U.S.C. 103(a) as being unpatentable over **a)** Weckwerth et al taken in combination with each of **b)** Gygi et al or Aebersold et al for the reasons of record as set forth in paragraph **(3)** of the July 01, 2003 Office action.

Applicants' arguments filed November 06, 2003 have been fully considered but they are not persuasive.

Applicants' statement that "Weckwerth only teaches or suggests the removal of a phosphate group from cysteine residues" appears to be in error (Remarks, page 10, second paragraph from the bottom). The Weckwerth et al method is clearly applied to serine and threonine groups as is the instantly claimed method. See the abstract of Weckwerth et al wherein a method is described to compare the phosphorylation status of proteins under two different conditions wherein "quantification was achieved by beta-elimination of phosphate from phospho-Ser/Thr followed by Michael addition of ethanethiol and/or ethane-d₅-thiol selectively at the vinyl moiety of dehydroalanine" (see also, page 1678, the first column, first paragraph under RESULTS AND DISCUSSION). This is clearly the same reaction described in the page 11 reaction scheme and Figure 2 of the instant specification. See the further description of page 11, lines 11-13 of the instant specification:

"Hydroxide mediated beta-elimination leaves dehydroalanine and methyl-dehydroalanine amino acid residues in place of the phosphoseryl (X=H) and phosphothreonyl (X=CH₃) residues, respectively."

Thus, the Weckwerth et al method is clearly applicable to a patentability determination of the instantly claimed method. It is further noted that instant claim 1 is not limited to the reaction of any particular amino acid.

Applicants' citation of a statement made at page 1677 of Weckwerth et al (Remarks, page 9, the first full paragraph) in support of the position that Weckwerth et al teaches away from the use of binding

Art Unit: 1641

groups in ICAT reagents is taken out of context. In the quoted section of Weckwerth et al, reference is apparently being made to the working examples of Gygi et al which are directed to an ICAT method applied to cysteine residues. However, the generic disclosures of both Gygi et al and Aebersold are much broader in scope and discuss the applicability of the ICAT reagents to the determination of a wide variety of proteins in different states. See for example, Aebersold, the paragraph bridging pages 14 and 15; page 25, describing the application of "differentially isotopically labeled affinity tagged reagents to determine the sites of induced protein phosphorylation"; and the abstract:

"...qualitative and quantitative analysis of global protein expression profiles in cells and tissues, to screen for and identify proteins whose expression level in cells, tissue or biological fluids is affected by a stimulus or by a change in condition or cell state of the cell, tissue or organism from which the sample originated".

Applicants state that the rejection of record is improper because Weckwerth et al do not suggest the use of a binding agent in their reagent (Remarks, page 9, first full paragraph). Applicants take the position that Weckwerth et al *alone* must suggest the use of such a reagent in order for the rejection to be proper, the case which would have to be made for a rejection under 35 USC 102. However, the rejection at issue is made under 35 USC 103 over a *combination* of references for the reason set forth in the second full paragraph of page 3 of the July 01, 2003 Office action.

3) THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

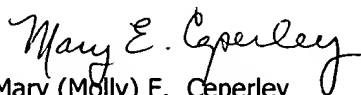
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1641

4) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary (Molly) E. Ceperley whose telephone number is (571) 272-0813. The examiner can normally be reached from 8 a.m. to 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long V. Le, can be reached on (571) 272-0823. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

January 23, 2004


Mary (Molly) E. Ceperley
Primary Examiner
Art Unit 1641